Claims:

1.(Original) An anastomosis staple device for connecting a free end of a graft vessel to a wall of a target vessel such that a lumen in the graft vessel is in fluid communication with a lumen in the target vessel through an opening in the wall of the target vessel, the anastomosis staple device comprising:

an anchor member, said anchor member having means for attaching said anchor member to said wall of said target vessel,

a coupling member, said coupling member being configured to attach said free end of said graft vessel to said coupling member, and

a coupling means for attaching said coupling member to said anchor member such that siad end of said graft vessel is sealingly connected to said wall of said target vessel and said lumen of said graft vessel is in fluid communication with said lumen of said target vessel through said opening in said wall of said target vessel.

2.(Original) An anastomosis fitting for connecting a free end of a graft vessel to a wall of a target vessel such that a lumen in the graft vessel is in fluid communication with a lumen in the target vessel through an opening in the wall of the target vessel, the anastomosis fitting comprising:

an inner flange, said inner flange having a proximal surface and a distal surface and a central orifice of sufficient size to accommodate an external diameter of said graft vessel, said inner flange providing an atraumatic attachment for said end of said graft vessel when said end of said graft vessel is passed through said central orifice and everted over said inner flange, said inner flange being insertable through said opening in said wall of said target vessel,

an outer flange, said outer flange having a proximal surface and a distal surface and a central orifice of sufficient size to accommodate the external diameter of said graft vessel, said distal surface of said outer flange being configured to contact an exterior surface of said wall of said target vessel proximate said opening, and

means for maintaining said outer flange in a selected position with respect to said inner flange such that said everted end of said graft vessel is sealingly connected to said wall

of said target vessel and said lumen of said graft vessel is in fluid communication with said lumen of said target vessel through said opening in said wall of said target vessel.

3.(Original) The anastomosis fitting of claim 2, wherein said inner flange is configured such that the everted end of said graft vessel substantially covers at least said distal surface of said inner flange such that said inner flange is fluidly isolated from said lumen of said target vessel and said lumen of said graft vessel.

4.(Original) The anastomosis fitting of claim 2, further comprising a tubular body having a proximal end and a distal end, said inner flange being connected to said distal end, said tubular body having a central lumen of sufficient size to accommodate an external diameter of said graft vessel.

5.(Original) The anastomosis fitting of claim 4 wherein a proximal portion of said tubular body is configured to be slidably received in said central orifice of said outer flange, and said means for maintaining said outer flange in a selected position with respect to said inner flange comprises a locking means for locking said outer flange to said tubular body.

6.(Original) The anastomosis fitting of claim 5 wherein said locking means comprises a self- locking retaining washer slidably positioned on an exterior surface of said tubular body.

7.(Original) The anastomosis fitting of claim 3 wherein said outer flange is deformable from an initial configuration wherein said distal surface of said outer flange does not contact said exterior surface of said wall of said target vessel to a deployed configuration wherein said distal surface of said outer flange contacts said exterior surface of said wall of said target vessel.

8-20 (Canceled)